

LOCKWELL USL

Urea Structural Liner

Product Description

Lockwell USL (Urea Structural Liner) is designed specifically for the consolidation of stressed rock structures related with mining to prevent extrication of strata and the accompanying risks presented from falling ground.

In addition, Lockwell USL has also fire retardant property which can extensive be utilized to other substrates.

Lockwell USL is a two component hard, tough, elastomeric material that is applied through low pressure plural component machinery with a static mixer. No heat is required. The product is flexible with good elongation and high early compressive and tensile strengths. Adhesion is outstanding to even moist surfaces. 60 to 70% of the physical properties are achieved in 1-2 hours (depending on ambient temperature) although set up time is only 10-15 minutes.

Features

- High Impact Strength
- High Tensile Strength
- Adheres to almost all strata surface (coal, rock, concrete)
- Fire Retardant
- Water based
- Solvent Free
- Quick stabilization results

Typical Application

- Rock support in tunnels and mines
- Suitable for lateral work and in shafts
- Slope stabilization
- Grouting applications
- Soil stabilization in poor ground conditions

Technical Data

Properties	Result
Compressive Strength	10 Mpa after 30 minutes 35 Mpa after 5 days
Tensile Strength	15—18 Mpa
Modulus of Elasticity	800-1000 Mpa
Elongation	60-80%
Back to Service	1-2 hours after application

Component Properties

Properties	Part A	Part B
Appearance	Brown translucent liquid	Clear, hazy liquid
Viscosity at 23°C cps	500-600 cps	600—900 cps
Density at 23°C	1.24	1.45
Mix ratio (v:v)	1	1
Coverage (1mm)	1.33kg per sqm (Part A+ Part B)	

Proper Storage

Lockwell USL Part A is a diphenylmethane diisocyanate and will react with moisture generating carbon dioxide. The containers should be stored with the seals intact and opened containers used first. The reaction with moisture/water can lead to dangerous build-up of pressure in the drums. Therefore, partially used containers must be tightly re-sealed after use to prevent ingress of moisture. Do not reseal containers once the contents have been used up. Storage life of 9 months from date of manufacture when stored at in-door ambient conditions (20—25°C) in un-opened containers. It is strongly advised to purge with dry nitrogen during use.

Lockwell USL Part B—storage life of 12 months from date of manufacture when stored at in-door ambient conditions (20—25°C) in unopened containers.

Packaging

20 litre pails, 60 and 200 litre drums, and 1,000 litre IBC's.

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Safety Handling

Lockwell USL Part A should be treated as a diisocyanate and the usual precautions should be exercised when handling this family of chemicals. Protective clothing should be worn and contact with the body avoided. Inhalation of spray aerosol must be strictly avoided and a protective mask, preferably with a clean air supply should be worn in the immediate spraying area.

Lockwell USL Part B is considered practically non-toxic, the usual precaution for handling chemicals should be exercised. Protective clothing should be worn and contact with the body avoided.

General Information

For safe handling information on this product, please refer to the Safety Data Sheet (SDS). Use Lockwell USL in accordance with all applicable local and national regulation. As regulations are often revised please request for the actual safety data sheet before using the product

Additional Information - Disclaimer

The information provided herein, especially recommendations for the usage and the application of our products, is based upon our knowledge and experience. Due to different materials and equipment used, as well as varying working conditions and environments beyond our control we strictly recommend carrying out intensive trials to test the suitability of our products with regard to the required processes and applications. This data sheet is provided free of charge and we do not accept any liability with regard to the above information or with regard to any verbal recommendation, except for cases where we are liable of gross negligence or false intention.